Section IV

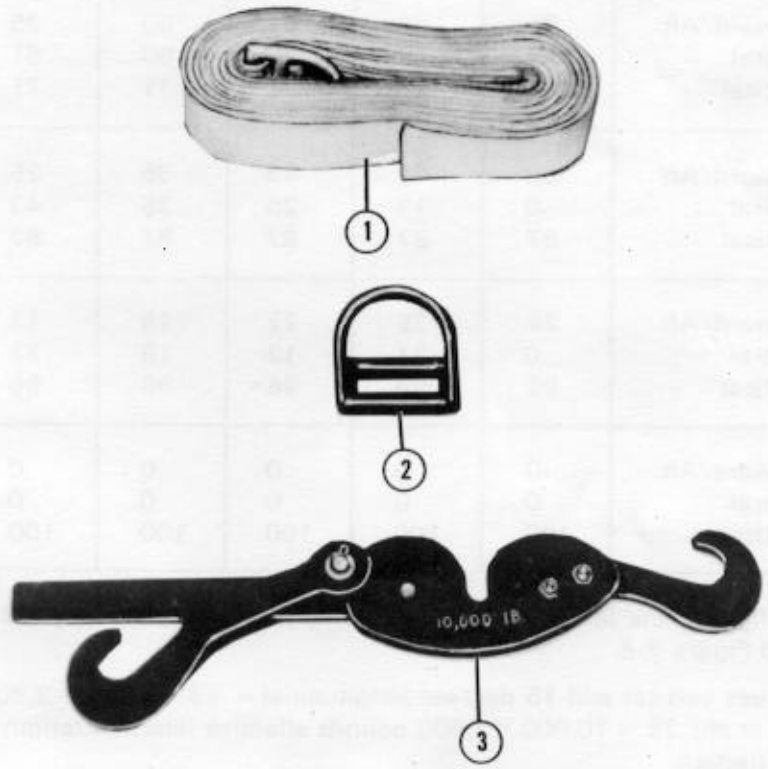
LASHINGS

2-10. Use

The drop item and any accompanying load are lashed to the platform to prevent damage to the load or to the aircraft during airdrop. Any accompanying load is lashed to the platform to withstand the same force as the drop item.

2-11. Components and Strengths

The components of the lashings used on airdrop loads are shown in Figure 2-5. The effective strength of a lashing is determined by the angle of the lashing to the plane of thrust. Table 2-4 lists lashing effectiveness (by percent) for forward, aft, lateral, and vertical thrusts. The maximum strengths of the various forms of lashings are given in Figure 2-6.



(1) One 15-foot tiedown strap.
(2) One heavy-duty D-ring.
(3) One 10,000-pound-capacity load binder.

Figure 2-5. Components of lashings

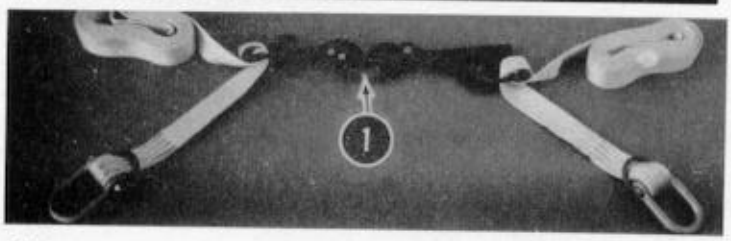
Table 2-4. Lashing effectiveness

ANGLE BETWEEN LASHING AND PLATFORM FLOOR			ANGLE BETWEEN LASHING AND LONGITUDINAL AXIS OF PLATFORM						
			0°	15°	30°	45°	60°	75°	90°
0°		Forward/Aft	100	97	87	71	50	26	0
		Lateral	0	26	50	74	87	97	100
		Vertical	0	0	0	0	0	0	0
15°		Forward/Aft	97	93	84	68	48	25	0
		Lateral	0	26	50	74	87	97	100
		Vertical	25	25	25	25	25	25	25
30°		Forward/Aft	87	84	75	61	43	22	0
		Lateral	0	22	43	61	75	84	87
		Vertical	50	50	50	50	50	50	50
45°		Forward/Aft	71	68	61	50	35	18	0
		Lateral	0	18	35	50	61	68	71
		Vertical	71	71	71	71	71	71	71
60°		Forward/Aft	50	48	43	35	25	13	0
		Lateral	0	13	25	35	43	48	50
		Vertical	87	87	87	87	87	87	87
75°		Forward/Aft	26	25	22	18	13	7	0
		Lateral	0	27	13	18	22	25	26
		Vertical	96	96	96	96	96	96	96
90°		Forward/Aft	0	0	0	0	0	0	0
		Lateral	0	0	0	0	0	0	0
		Vertical	100	100	100	100	100	100	100

The effective strength of the lashing is determined by multiplying the percent by the maximum strengths given in Figure 2-6.

EXAMPLE: 15 degrees vertical and 15 degrees longitudinal = .93 × 10,000 = 9,300 pounds effective strength, forward or aft; .25 × 10,000 = 2,500 pounds effective lateral strength and 2,500 pounds effective vertical strength.

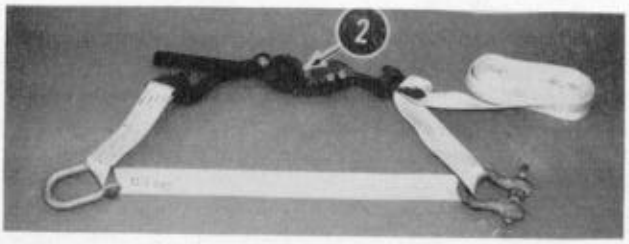
CAUTION
When using type V platform, Dacron lashings must be used.



Platform

Platform

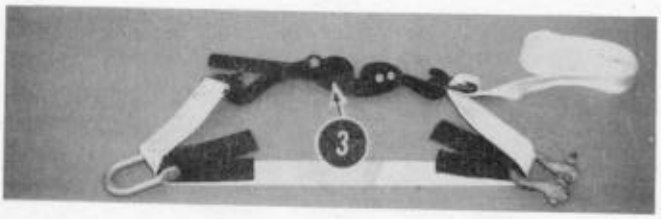
(1) Single line lashing.
5,000 pounds (Dacron) or 3,500 pounds (type X nylon) when attached to a type II or LAPE platform side rail tie-down clevis.
6,000 pounds (Dacron) when attached to a type V platform side rail tie-down clevis or a tie-down ring.



Platform

Item

(2) Double line (floating binder) lashing.
7,000 pounds (Dacron or type X nylon) when attached to a type II or LAPE platform side rail tie-down clevis.
10,000 pounds (Dacron) when attached to a type V platform side rail tie-down clevis.
5,000 pounds (Dacron or type X nylon) when attached to a LAPE panel platform tie-down ring.
8,000 pounds (Dacron) when attached to a type V platform panel tie-down ring.



Platform

Item

(3) Double line (floating binder) lashing with cotton buffers.
8,500 pounds (Dacron) or 7,000 pounds (type X nylon) when attached to a type II or LAPE platform side rail tie-down clevis.

Figure 2-6. Strengths of Dacron and type X nylon lashings